Hubungan antara skor kalsium arteri koroner dengan indeks remodelling arterial pada pasien penyakit jantung koroner di RSUPN Cipto Mangunkusumo = Relationship between coronary artery calcium score and arterial remodelling index in coronary heart disease patient in national centre general hospital Cipto Mangunkusumo

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Abstrak

Latar Belakang : Penyakit kardiovaskuler merupakan penyebab kematian utama di dunia. Penyakit jantung koroner sebagai akibat aterosklerosis merupakan penyebab kematian utama penyakit kardiovaskuler baik di Amerika Serikat maupun di Indonesia. Penting untuk melakukan segala upaya deteksi dini hal-hal terkait peningkatan risiko demi mencegah penyakit ini. CT scan kardiak mampu menilai proses aterosklerosis melalui evaluasi remodelling pada lumen pembuluh darah koroner sebagai informasi untuk tata laksana pasien penyakit jantung koroner.
Tujuan : Mendapatkan arah hubungan risiko kardiovaskuler tinggi berdasarkan skor kalsium arteri koroner terhadap indeks remodelling pada pasien penyakit jantung koroner yang menjalani CT scan kardiak.
Metode : penelitian ini menggunakan desain potong lintang dengan metode consecutive sampling. Sampel penelitian berjumlah 63 pasien penyakit jantung koroner yang telah menjalani pemeriksaan CT scan kardiak di Departemen Radiologi RSUPN Cipto Mangunkusumo periode Juli 2013 hingga Februari 2019. Penelitian dilakukan sejak Desember 2018 hingga April 2019. Penilaian total skor kalsium arteri koroner dan penilaian indeks remodelling dilakukan oleh peneliti dan dilakukan pengecekan kembali oleh pembimbing Radiologi.
Hasil : Dilakukan Uji Mann-Whitney U, pada total indeks remodelling positif didapatkan nilai median 134,6 dengan range 3,2 sampai 3862,4 dan pada total indeks remodelling negatif didapatkan nilai median 7 dengan range 1,4 sampai 356,5. Terdapat perbedaan signifikan diantara keduanya ($p<0,05$). Dilakukan penentuan titik potong total skor kalsium arteri koroner sebesar 54,8 dengan nilai sensitivitas 76 % dan spesifisitas 76,9 %.
Kesimpulan : Terdapat hubungan positif antara total skor kalsium arteri koroner dengan indeks remodelling arteri koroner melalui CT scan kardiak pada pasien penyakit jantung koroner.
.....Background : Cardiovascular disease is the leading cause of death in the world. Coronary heart disease as a result of atherosclerosis is the leading cause of death for cardiovascular disease both in the United States and in Indonesia. It is important to make every effort to detect things related to increasing risk to prevent this disease. Cardiac CT scan is able to assess the process of atherosclerosis through evaluation of remodeling of the lumen of the coronary arteries as information for the management of patients with coronary heart disease.
Purpose : Obtain direction of the relationship of high cardiovascular risk based on coronary artery calcium score to index remodeling in coronary heart disease patients undergoing cardiac CT scans.
Method : this study uses cross-sectional design with consecutive sampling method. The study sample consisted of 63 coronary heart disease patients who had undergone cardiac CT scan in the Radiology Department of Cipto Mangunkusumo Hospital in the period July 2013 to February 2019. The study was conducted from December 2018 to April 2019. Evaluation of total coronary artery calcium scores and

remodeling index assessment was carried out by researchers and is checked again by the Radiology supervisor.
Results : The Mann-Whitney U Test was carried out, on the total positive remodeling index obtained a median 134.6 with a range of 3.2 to 3862.4 and the total negative remodeling index obtained a median 7 with a range of 1.4 to 356.5. There were significant differences between the two ($p < 0.001$). Determination of the total coronary artery calcium score cut was 54.8 with a sensitivity 76% and a specificity of 76.9%
Conclusion : There is a positive relationship between the total coronary artery calcium score and the index of coronary artery remodeling through cardiac CT scan in coronary heart disease patients